1 THE HONORABLE JOHN C. COUGHENOUR 2 SPECIAL MASTER GALE R. PETERSON 3 IN THE UNITED STATES DISTRICT COURT 4 FOR THE WESTERN DISTRICT OF WASHINGTON 5 AT SEATTLE 6 VERITAS OPERATING CORPORATION. Case No. CV 06-0703 JCC a Delaware Corporation, 7 8 Plaintiff, **DEFENDANT MICROSOFT** 9 VS. **CORPORATION'S RESPONSIVE** 10 **CLAIM CONSTRUCTION BRIEF** MICROSOFT CORPORATION, a Washington Corporation, REGARDING U.S. PATENT NO. 11 5,469,573 Defendant. 12 13 MICROSOFT CORPORATION, a 14 Washington Corporation, 15 Counterclaim Plaintiff and Counterclaim Defendant, 16 VS. 17 VERITAS OPERATING CORPORATION, 18 a Delaware Corporation, and VERITAS SOFTWARE CORPORATION, a Delaware 19 corporation, 20 Counterclaim Defendants 21 and Counterclaim Plaintiffs. 22 23 24 25 26

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TABLE OF ASSERTED CLAIMS

1. A method for loading a fully configured operating system onto a storage device of a data processing system, comprising the steps of:

providing a first media comprising operating system files for installing the fully configured operating system onto the storage device;

providing a second media comprising configuration-specific data files;

initializing the data processing system from the second media to provide a temporary operating system and using the configuration-specific data files to configure the data processing system;

loading the fully configured operating system files from the first media to the storage device using the temporary operating system; and

reinitializing the data processing system from the storage device to install the fully configured operating system.

- 2. The method of claim 1, wherein the step of providing the first media comprises copying the operating system files stored on the storage device to the first media.
- 3. The method of claim 2, wherein the step of providing the first media further comprises copying all the files from the storage device to the first media.
- 4. The method of claim 3, wherein the first media comprises magnetic tape, and copying all the files comprises running a data backup routine.
- 5. The method of claim 1, wherein the step of providing a second media comprises copying the configuration-specific data files from the storage device to the second media.
- 7. The method of claim 5, wherein the configuration-specific data files comprise system configuration files.
- 8. The method of claim 5, wherein the configuration-specific data files comprise operating system configuration files.

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loading the fully configured operating system files from the first media to the disk drive using the temporary operating system to install the fully configured operating system; and

reinitializing the data processing system from the disk drive to provide the fully configured operating system.

- 19. The method of claim 18, wherein the step of copying first operating system files comprises copying all the files from the disk drive to the first media.
- 22. The method of claim 18, wherein the configuration-specific data files comprise system configuration files.
- 23. The method of claim 18, wherein the configuration-specific data files comprise operating system configuration files.
- 24. The method of claim 18, wherein the configuration-specific data files comprise device driver files.
- 26. The method of claim 18, wherein the step of initializing the disk drive comprises formatting the disk drive.
- 27. The method of claim 26, wherein the step of initializing the disk drive step further comprises partitioning the disk drive.
- 28. The method of claim 18, wherein the step of initializing the disk drive comprises formatting a partition of the disk drive.
- 29. The method of claim 18, wherein each partition is formatted using a format command specific to the particular operating system to be loaded into that partition.
- 30. A method for loading a fully configured operating system onto a disk drive of a first data processing system, comprising the steps of:
- configuring a disk drive of a second data processing system with the desired configuration for the first data processing system;

TABLE OF CONTENTS

1

2			Page
3	I.	INTRODUCTION	1
4	II.	ORGANIZATION OF THIS BRIEF AND APPENDICES	4
5	III.	GOVERNING LAW ON SELECTED MARKMAN ISSUES	4
6	IV.	U.S. PATENT NO. 5,469,573 PATENT BACKGROUND	6
7		A. The Disaster Recovery Problem	6
8		B. The Standard Emergency Boot (Recovery) Disk Disaster Recovery Solution .	7
9		C. The Person Of Ordinary Skill In This Art In February, 1993	7
10		D. The POSA's Understanding Of The '573 Patent's Solution	8
11		E. The Patent's Prosecution History And Issued Claims	11
12 13	V.	PROPOSED CLAIM CONSTRUCTIONS	12
14		A. METHOD: Recover (Use Emergency Boot (Recovery) Disk)	12
15		Configure, Configuring, Configured, and Configuration	
16 17		"Configuring" The Data Processing System Means Tailoring The System's Hardware And/Or Software, And Is Not Limited To Selecting Components	13
18 19		Microsoft's Two <i>Non-Limiting</i> Examples, Taken From The Patent, Will Help The Jury	
20		"Initializing" And "Using" Steps	
21		3. The Literal And Grammatical Reading	17
22		Of This Claim Language Is The Correct Construction	
23		4. The Omission Of The Word "And" In Claim 33 Was An Error	
24		5. Microsoft's Non-Limiting Example Is Helpful To The Jury	26
25			
26			
	1		

1		"Configuration-Specific Data Files"
2 3		6. The Configuration Files Need To Provide Only Enough Information To Allow The
		Computer To Recover Its Data From The Backup Device27
4		7. Microsoft's Non-Limiting Examples Are Correct And Will Help The Jury29
5	<i>p</i>	
6	В.	Dependent Claims 7-9, 22-24 Recite Three Examples Of Configuration-Specific Data Files
7 8		 Microsoft's Non-Limiting Examples for "System Configuration Files" And "Operating System
9		Configuration Files" Are Correct and Helpful to the Jury31
10		2. The Court Should Adopt Microsoft's Construction Of "Device Driver Files"
11	C.	METHOD: Prepare (Create Backup)
12	C.	And Recover (Restore From Backup)
13		The Above "Providing" and "Loading" Steps
14 15		The First Media (Backup Device) Need Not Store The Entire "Fully Configured" Operating System33
16		 These Claim Steps Preclude Restoring A
17		Bit Mapped Image Of The Operating System34
18	D.	METHOD: Recover (Re-boot And Use The Restored System)35
19		"Install"
20		"Reinitializing"
21	E.	The Claim As A Whole
22		1. Claims 1, 18, 33 Are Directed To
23		Recovery Of An Operating System That Becomes Corrupted Or Inoperative;
24		They Do Not Cover The Factory Loading Scenario37
25		
26		
27		

Page vi CV 06-0703 JCC DEFENDANT MICROSOFT CORPORATION'S RESPONSIVE CLAIM CONSTRUCTION BRIEF REGARDING U.S. PATENT NO. 5,469,573

Case 2:06-cv-00703-JCC Document 106 Filed 05/03/07 Page 8 of 60

1 2			2.	The Claims Require That The Loading Of The Fully Configured Operating System Be Accomplished By The Data Processing System Itself, Rather Than By Some Other Computer From Which That Operating System Is Transferred	37
3			3.	Each Step May Be Performed Manually	
5			4.	The Steps May Be Performed Far Apart In Time	38
6		F.	Claim	Terms Referring To Physical Devices	38
7 8			1.	The Storage Device, First Media (Backup), And Second Media (Emergency Boot (Recovery) Disk) Are Physically Distinct, And Not The Same Physical Thing	39
9 10			2.	Each of the First Media (Backup) And Second Media (Emergency Boot (Recovery) Disk) May Comprise Multiple Physical Units	
11			3.	The Second Media Is Bootable	
12			4.	The Second Media (Emergency Boot (Recovery) Disk) Is Removable	42
13 14			5.	The Function Of The Patent's Storage Device Is To Store Software And Other Digital Data	43
15			6.	Microsoft's Non-Limiting Examples Will Help The Jury	43
16		G.	Additi	onal Claim Construction Issues Presented by Claims 30 and 31	44
17			1.	Claim 30 Does Not Require Factory Loading	44
18			2.	Limiting To A Predetermined Quantity	44
19 20	VI.			NFIGURED OPERATING SYSTEM" AND "DESIRED ATION" RENDER THE CLAIMS INCURABLY INDEFINITE	45
21	VII.	THE C	COURT	SHOULD DISMISS THE REPORT SIGNED BY DR. SMITH	48
22	VIII.	CONC	CLUSIC)N	50
23					
24					
25					
26					

TABLE OF AUTHORITIES

2	<u>Page</u>
3	<u>Cases</u>
4 5	Abraxis Bioscience, Inc. v. Mayne Pharma (USA), Inc., 467 F.3d 1370 (Fed. Cir. 2006)
6	Brookhill-Wilk, LLC v. Intuitive Surgical, Inc., 326 F.3d 1215 (Fed. Cir. 2003)
7 8	Datamize, LLC v. Plumtree Software, Inc., 417 F.3d 1342 (Fed. Cir. 2005)
9 10	Endress + Hauser, Inc. v. Hawk Measurement Systems Pty. Ltd., 122 F.3d 1040 (Fed. Cir. 1997)
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14 15	Markman v. Westview Instruments, 517 U.S. 370 (1996)
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17 18	Power Mosfet Technologies, LLC v. Siemens AG, 378 F.3d 1396 (Fed. Cir. 2004)
19	Robotic Vision Systems, Inc. v. View Engineering, Inc., 189 F.3d 1370 (Fed. Cir. 1999)
20 21	Serio-US Industries, Inc. v. Plastic Recovery Technologies Corp., 459 F.3d 1311 (Fed. Cir. 2006)
22 23	Union Pac. Resources Co. v. Chesapeake Energy Corp., 236 F.3d 684 (Fed. Cir. 2001)
24	Rules
25	Fed. R. Evid. 702
26	
27	

Page VIII
CV 06-0703 JCC
DEFENDANT MICROSOFT CORPORATION'S
RESPONSIVE CLAIM CONSTRUCTION BRIEF
REGARDING U.S. PATENT NO. 5,469,573

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LAW OFFICES **DANIELSON HARRIGAN LEYH & TOLLEFSON LLP**999 THIRD AVENUE, SUITE 4400
SEATTLE, WASHINGTON 98104
TEL, (206) 623-1700 FAX, (206) 623-8717

I. <u>INTRODUCTION</u>

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In February, 1993, five employees of a company near Boston filed a patent application on a technique that had been developed and widely adopted by others years earlier. Why they did this is not yet known. What is known, though, is that the resulting '573 Patent claims this standard, state of the art solution. (Last week, the Patent Office granted Microsoft's Request for Reexamination, based on six separate examples of this prior art technique. (*See* Apx. B, pgs. 352-365).) Now, 14 years later, in an attempt to avoid that dead-on prior art, Veritas seeks to re-invent the patent's alleged invention and re-draft its claims. Below are two examples to back up this charge.

First, any savvy computer user knows that one "configures" a computer by tailoring its hardware and/or software in a particular manner. One might begin configuring by installing particular versions of hardware and software, and then continue configuring by choosing from among thousands of available configuration settings available for that hardware and software. The '573 Patent uses "configure" in this customary way—equating it with a "tailoring operation" ('573 Pat. at 1:28)—as shown by these examples:

<u>Configuring by Loading Programs</u>: "Prior to performing a recovery or loading operation with this invention, a PC is fully loaded and <u>configured</u> (100) as desired with the operating system, device drivers, configuration files, and application software including a tape backup program." ('573 Pat. at 5:19-24). (Emphasis added throughout this Brief, unless otherwise noted).

<u>Configuring by Setting Parameters</u>: "The system is then <u>configured</u> by the boot manager (416) to boot from the C: disk drive." (*Id.* at 7:22-23; *see also* Fig. 6A).

But, Veritas now tries to limit "configure" to "Tailoring the capability <u>based on</u> selection of components." Using this unnatural narrowing of "configure," if one spends three hours carefully tailoring a computer to customize hundreds of different settings to one's

The parties' proposed constructions are set forth in Appendix A.

personal preferences, but doesn't "select" any "components" in the process, one has not "configured" the computer. Plainly, that is <u>not</u> how the patent uses "configure."

Our second example of Veritas rewriting the claims is demonstrated by the plain grammar of the claim language, but benefits from some background on the problem addressed in the patent and its standard solution in the late 1980s and early 1990s.

The Problem: For decades, computer users backed up data onto some removable storage media, such as a tape drive, so they could later recover that data if their computer hard drive crashed, or their computer was stolen or destroyed. To later recover that data, however, the repaired or replaced computer had to be configured (tailored) correctly to communicate with the particular model of back-up device that had been used, and configured to receive the backed up data. This posed a "chicken before the egg" problem. That is, the programs and data needed to configure the repaired or replaced computer to access the specific backup device, were themselves stored on the backup device. Thus, unless a user planned ahead, she had to re-configure the computer from scratch in order to recover her backed up data. (*See* '573 Pat. at 1:18-55).

The Standard Solution: The standard "disaster recovery" solution was to plan ahead by storing on a separate, floppy boot disk(s) the necessary configuration data that would be needed post-crash to work with the backup device and receive the backed up data. This floppy typically was called an "Emergency Boot Disk" or "Recovery Diskette" (hereinafter "Emergency Boot (Recovery) Disk"). It served at least two functions. First, it provided whatever operating system files the computer needed to start (boot) up. Second, it provided the configuration data the computer needed to access the backup device and receive the backed up data, such as the particular backup device's "driver" program and the particular backup and restore program that had been used to backup the data. If the hard disk "crashed," corrupting the operating system, the user would (1) insert this Emergency Boot (Recovery) Disk into the computer, (2) boot from it to provide a (temporary) operating system to run the computer, (3)

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allowing the computer to be configured (using the floppy's configuration data) as necessary to access the backup device and receive the backed up data, (4) restore whatever operating system and other programs and other data that had been backed up, (5) remove the Emergency Boot (Recovery) Disk from the floppy drive, and finally (6) reboot the computer from its (permanent) restored operating system.

The '573 Patent Describes and Claims this Standard Solution: The '573 Patent describes and claims this standard solution. The claims call the Emergency Boot (Recovery) Disk the "second media," and recite its two functions (boot and configure) as follows:

"<u>initializing</u> the data processing system from the second media to provide a temporary operating system <u>and using</u> the configuration-specific data files to configure the data processing system." ('573 Pat., Claim 1).

This quoted claim language combines two participle clauses with the conjunction "and." Each clause recites an action performed on an object to achieve a result:

Action	Object	Result	
Initializing from the second media	the data processing system	to provide a temporary operating system	
using	the configuration-specific data files	to configure the data processing system	

<u>Veritas Scrambles the Claim</u>: Veritas now scrambles the clear structure, grammar, and meaning of above-quoted claim language with its proposed construction:

Starting the operation of the [first] data processing system from the second media, and adjusting the starting configuration of the [first] data processing system using the configuration-specific data files, to set up a temporary operating system for use.

This revision of the claim language distorts and moves the result of the first ("initializing") clause ("to provide a temporary operating system") to the end of the second clause, and tries to link that result to the action recited in the <u>second</u> clause ("using [the configuration-specific data files]"). Veritas also introduces a new action of "adjusting the starting configuration," and

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changes the broad "provide" to the narrower "set up ... for use." As explained below, the transparent reason for Veritas' claim-scrambling is to artificially limit the claims in an effort to avoid anticipation by some standard prior art implementations.

In addition to rewriting the claims, Veritas tries to cloud the claims with incomplete and unclear constructions. And, it objects to giving the jury (non-limiting) examples to help explain the meaning of the claims. Microsoft, in contrast, urges the Court to give the jury complete and unambiguous explanations of these claims including, where appropriate, non-limiting examples to help the jury fully understand what these claims do and do not cover.

II. ORGANIZATION OF THIS BRIEF AND APPENDICES

This Brief summarizes the state of the art, the patent, and the patent's prosecution history. It then analyzes the disputed claim language and the parties' competing constructions. It ends with reasons why the Court should dismiss the report signed by Dr. Smith for Veritas.

Accompanying this Brief are two Appendices:

- Appendix A: Microsoft and Veritas Combined Proposed Constructions for the '573 Patent.
- Appendix B: Microsoft Record Evidence (selected excerpts referred to in this Brief are paginated as "Apx. B, pg. ####").

III. GOVERNING LAW ON SELECTED MARKMAN ISSUES

Microsoft incorporates by reference its discussion of *Markman* case law in its Opening Claim Construction Brief Regarding Microsoft's U.S. Patent No. 5,588,147. The parties' constructions of the '573 Patent claims raise two additional questions of *Markman* law.

First, how does one identify a "person of ordinary skill in the art (POSA)?" Veritas' description of a POSA (Ver. Opening Br. at 10:14-20) makes no reference to the particular problem or field of art described in the patent, namely the backup and recovery of data including operating systems. Under Veritas' description, the POSA might know absolutely nothing about this particular field or its state of the art in 1993. That cannot be. Rather, "the

person of ordinary skill is a hypothetical person who is presumed to be aware of all the pertinent prior art." *Endress* + *Hauser*, *Inc.* v. *Hawk Measurement Systems Pty. Ltd.*, 122 F.3d 1040, 1042 (Fed. Cir. 1997) (citation omitted); *see also Environmental Design, Ltd.* v. *Union Oil Co. of Calif.*, 713 F.2d 693, 696-97 (Fed. Cir. 1983) (the factors considered in determining the level of ordinary skill include (1) the kinds of problems encountered in the art and (2) prior art solutions to such problems).

Second, does the state of the art matter in *Markman* proceedings? Veritas says No, but Microsoft disagrees. Persons of skill in the art bring more than just a particular vocabulary to their reading of the patent application. POSAs naturally read it through the lens of what they know about the state of the art. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313, 1332 (Fed. Cir. 2005) (*en banc*) ("[A] claim should be interpreted both from the perspective of one of ordinary skill in the art and in view of the state of the art at the time of invention."); *Brookhill-Wilk, LLC v. Intuitive Surgical, Inc.*, 326 F.3d 1215, 1220 (Fed. Cir. 2003) ("The words used in the claims are examined through the viewing glass of a person skilled in the art.") (citation omitted). Here, Veritas' expert, Dr. Smith, conceded that the '573 Patent's recovery diskette was a form of emergency boot disk and that a POSA would have known of and considered that emergency boot disk art when reading the patent. (Apx. B, pgs. 246-49, 270-71: Smith TR at 112:9-115:18, 170:11-171:15 (knowledge of the emergency boot disk art "would inform one's reading of the patent").) Also, the prior art provides at least as much meaningful context for claim construction as does the accused product, *cf. Serio-US Industries, Inc. v. Plastic Recovery Technologies Corp.*, 459 F.3d 1311, 1319 (Fed. Cir. 2006).

Following this case law, Microsoft approaches the '573 Patent claims through the POSA's Emergency Boot (Recovery) Disk "state of the art" lens.

Veritas tries to have it both ways on this issue. On the one hand, Veritas tells the Court that the '573 Patent applicants significantly improved upon the prior art. (*See*, *e.g.*, Ver. Opening Br. at 1:20-21). For this, Veritas cites the report of Dr. Smith (Apx. B, pgs. 102, 114:

1	Smith Report, ¶¶ 6, 34) even though Veritas intentionally kept him in the dark about the prior
2	art (see Apx. B, pgs. 228, 234-35, 243: Smith TR 18:13-24, 35:1-36:9, 56:9-13 ("I've made no
3	study of the prior art")). On the other hand, Veritas says the Court should not consider prior ar
4	in this <i>Markman</i> proceeding. (Ver. Opening Br. at 3:14-20). Veritas is wrong on both counts.
5	The '573 Patent describes an Emergency Boot (Recovery) Disk technique that was well known
6	to the POSA years before the patent application was filed (see Apx. B, pgs. 88-95: Lary Decl.,
7	at 9:9–16:19), and that state of the art is highly relevant to how such a POSA would understand
8	this patent and its claims.
9	IV. <u>U.S. PATENT NO. 5,469,573 PATENT BACKGROUND</u>
10	A. The Disaster Recovery Problem
11	A 1990 Baxter/Herbert Usenet publication called "How to Make a Disaster Boot
12	Floppy," aptly described the "chicken before the egg" problem, as follows:
13	Having installed a tape drive, and snapped a copy of my disk onto a tape, I

am wondering how to restore that image should my disk contents get wiped out. Since one has to custom-configure ISC Unix to install the tape drive, the obvious solution is to install a fresh Unix, configure it, and then restore the tape.... This solution suffers the problem of having to do all that configuration work, when the desired result of it is already sitting on the tape, just waiting to be restored. Clearly a chicken-before-the-egg? problem. Surely there must be a better way; I'm open to suggestions. (Apx. B, pg. 278: Baxter, "How to Make a Disaster Boot Floppy" (1990)).²

Nearly three years later, after Baxter asked and answered that question, the '573 Patent applicants described the same problem:

Data backup systems, such as magnetic tape backup, are generally very useful for restoring corrupted or destroyed data files on the high capacity hard disk. However, these backup systems normally require that the disk operating system installed on the hard disk be intact and fully operational before data can be

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The remainder of this publication answers Mr. Baxter's inquiry, describing the standard solution in detail.

restored to the hard disk. A data loss affecting the operating system itself is typically not recoverable by using the tape backup system, and requires that the operating system be reloaded onto the hard disk and configured anew. Where the operating system was "factory loaded," reloading of the operating system onto the hard disk outside the factory may consume many hours of valuable user and technical support time. ('573 Pat. at 1:43-55).

B. The Standard Emergency Boot (Recovery) Disk Disaster Recovery Solution

In 1992, the standard solution to this problem was to create an Emergency Boot (Recovery) Disk with sufficient configuration information to allow the computer to access and restore whatever had been saved to the backup media, including the operating system if that had been backed up. Although Veritas' expert Dr. Smith avoided reading the prior art Microsoft had provided to Veritas, he knew enough to know that prior to 1993, the standard way to solve the crash recovery problem addressed in the '573 Patent was to use an emergency boot disk:

Q. Do you have any information about <u>any techniques that were used prior to 1993 in order to fully or partially solve the problem identified in the 573 patent about having to configure the system anew after a crash?</u>
MR. PAK: Objection. Vague and ambiguous. Incomplete hypothetical. Lacks foundation. Compound question.
THE WITNESS: <u>My recollection is everyone started with an emergency boot disk</u>. At least in the work station PC world. There were other ways of restoring the system in the mainframe world, and usually the guys in the glass room took care of that. (Apx. B, pg. 276: Smith TR at 182:4-16).

This standard Emergency Boot (Recovery) Disk technique used the same steps described in the '573 Patent, as is explained in Section IV. D. *infra*, and documented at Apx. B, pgs. 278-328 and other materials submitted with Exhibit G of the Joint Claim Construction Statement (hereinafter referred to as "JCCS") and explained by Richard Lary in his declaration. (*See generally*, Apx. B, pgs. 80-96).

C. The Person Of Ordinary Skill In This Art In February, 1993

Richard Lary is an expert in this field. (Apx. B, pg. 80: Lary Decl. at 1:10-18). He describes the persons of ordinary skill in the art (POSAs) as of February, 1993, in relation to

the problem addressed by the '573 Patent. In particular, he defines the POSA as either of two persons: (1) a skilled system administrator looking for ways to reduce the amount of work involved in recovery of a system disk (a disk storing the operating system) or (2) the backup software designer, skilled in the art of software engineering, looking to incorporate rapid recovery from system disk failures into a backup application. (*See, e.g.*, Apx. B, pg. 89: Lary Decl. at 10:5-17). Case law permits such multiple POSA categories. *See, e.g.*, *Robotic Vision Systems, Inc. v. View Engineering, Inc.*, 189 F.3d 1370, 1373 (Fed. Cir. 1999). Each POSA would have been familiar with the Emergency Boot (Recovery) Disk prior art, as that art addresses the same problem addressed by the '573 Patent (and provides the same solution).

D. The POSA's Understanding Of The '573 Patent's Solution

A POSA picking up the '573 Patent application on February 26, 1993, immediately would have recognized that it was describing an implementation of the standard Emergency Boot (Recovery) Disk crash recovery procedure, and read it through that "state of the art" lens. *Cf., Brookhill-Wilk*, 326 F.3d at 1220. The POSA also would have seen that the application was not limited to any particular operating-system implementation of that known Emergency Boot (Recovery) Disk technique, as the application expressly states that the alleged "invention" applies to "IBM OS/2 (versions 1.2, 1.3x, 2.0 and 2.x), but could also be Microsoft MS-DOS, Microsoft Windows 3.x, UNIX, or another operating system." ('573 Pat. at 3:46-50). With this "state of the art" lens, the POSA would have understood the patent application to describe the following crash recovery process:

PREPARE (CREATE BACKUP)

Standard: The first step of the standard Emergency Boot (Recovery) Disk technique—and of the standard backup procedure in general—was to backup the contents of a hard disk, including all or part of the computer's configured operating system, to a removable tape or other removable backup media. Some backup applications at that time—including the "Sytos"

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Plus" program of Sytron Corporation (the Applicants' employer) mentioned in the '573 Patent
application—allowed the user to do a full backup including the operating system files. (Id. at
5:19-36). Several of the prior art Emergency Boot (Recovery) Disk publications recommend
doing such a full back-up. (See, e.g., Apx. B, pg. 314: CT-BOOT Brochure: " to archive
EVERYTHING on a filesystem").

<u>Patent</u>: The '573 Patent describes this same first step: per Fig. 3, steps 102-03, save the computer's configured operating system, and perhaps other contents of a hard disk, to a tape or other backup media. ('573 Pat. at 5:21-36).

PREPARE (CREATE EMERGENCY BOOT (RECOVERY) DISK)

Standard: Next, create a removable Emergency Boot (Recovery) Disk (which might be two or more disks), and save to it whatever drivers, restore program and other configuration data will be needed to access the backup media and receive data from it. Examples of the specific configuration files that were saved include device driver files, user preference files, password files, CONFIG.SYS, AUTOEXEC.BAT, backup logs, recovery programs, etc. (*See, e.g.*, Apx. B, pg. 278-82: <u>Baxter</u>; Apx. B, pgs., 319-22: <u>Supercharging MS-DOS</u> at 354-57).

<u>Patent</u>: The '573 Patent describes this same step. Per Fig. 3, steps 104-112, create a bootable recovery diskette, and save to it whatever drivers and configuration information will be needed to access the backup media:

Next, a recovery diskette is prepared from the fully configured PC by copying various files from the hard disk onto the recovery diskette . . . These copied files include vital operating system configuration files (104), system configuration files (106), and device drivers (108) which are required for the proper operation of the hardware, operating system, and attached devices. ('573 Pat. at 5:39-46).

RECOVER (USE EMERGENCY BOOT (RECOVERY) DISK)

Standard: Next, after a crash or other loss of data and after the user repaired or replaced the hard drive, she inserted the Emergency Boot (Recovery) Disk and booted the computer from it. The computer used the configuration information stored on this disk (e.g.,

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backup device driver, backup and restore program, etc.) to configure itself as necessary to access the backup media and recover data from it. (*See, e.g.*, Apx. B, pg. 291: <u>CT-BOOT Manual</u> at 7: "Boot the system from the CTAR BOOT Diskette ... reconfigure and prepare a currently existing hard drive for restoration of CTAR backups ..."; Apx. B, pg. 278: <u>Baxter</u>: "build an emergency boot floppy with the configured OS (at least, the OS configured with the tape driver and all the hard disk partitions); in case of disaster, one could simply boot that and then do a tape restore.")

<u>Patent</u>: The '573 Patent describes these same uses for its recovery diskette. Per Fig. 4, step 202, after repairing or replacing the hard drive, use the boot recovery diskette to boot the computer and also to configure it as necessary to access the backup media and receive data from it:

To begin the recovery process, the operator inserts (200) the backup tape containing the operating system files to be restored into the PC tape drive. Next, the operator starts (i.e., boots) (202) the PC from the recovery diskette which loads an initial, temporary operating system into the memory of the PC. The recovery diskette also supplies this initial operating system with the necessary system configuration files and device drivers, i.e., the files previously copied to the recovery diskette from the fully configured PC. ('573 Pat. at 6:10-18).

RECOVER (RESTORE FROM BACKUP)

Standard: Next, the user used the sufficiently configured computer to recover whatever she had backed up, including the operating system and other programs. (*See, e.g.*, Apx. B., pg. 291: CT-BOOT Manual at 7: "restores your last CTAR Master Backup").

<u>Patent</u>: The '573 Patent describes this same step. Per Fig. 4, steps 204-206, restore the configured operating system, and perhaps other contents, from the backup media to the new or repaired hard drive:

Next, a recovery program is loaded from the recovery diskette into the PC and run (204) to directly recover (206) the operating system files from the backup tape. Other files on the backup tape can also be restored to the PC by the recovery program. ('573 Pat. at 6:26-30).

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RECOVER (RE-BOOT AND USE THE RESTORED SYSTEM)

Standard: Finally, the user removed the Emergency Boot (Recovery) Disk and rebooted the computer from the hard drive using the (permanent) restored operating system. (See, e.g., Apx. B, pg. 291: CT-BOOT Manual at 7: "Reboot from your hard drive and away you go.")

<u>Patent</u>: The '573 Patent describes this same final step. Per Fig. 4, step 208, re-boot the computer from the hard drive and use the restored operating system. ('573 Pat. at 6:30-33).

E. The Patent's Prosecution History And Issued Claims

Applicants originally filed 32 claims. The Examiner rejected them under Sections 112, ¶ 2, and 103. Applicants amended the claims, added two new claims, and submitted Remarks taking several positions on the scope of the claims, including:

- Applicants repeatedly argued that claims 1, 18 and 33 are directed to recovering from a corrupted operating system. (Apx. B, pgs. 31-36: Amendment [10/28/94] at 6-11).
- They argued that the claims' method steps could be performed manually or automatically. (*Id.*, pg. 30: Amendment [10/28/94] at 5).
- To distinguish cited art, they argued that the claims exclude a system in which the loading of the "fully configured" operating system is accomplished by some computer other than the data processing system itself. (*Id.*, pgs. 34-35: Amendment [10/28/94] at 9-10).

The Applicants did not cite any Emergency Boot (Recovery) Disk art to the Examiner and the Examiner did not find that art on his own. The Applicants cited only two prior art patents and one publication. These cited references concerned the selection of files to be backed up and a network backup application.

The Examiner then allowed all of the claims, except one of the two new claims which Applicants then cancelled. The Patent issued with 33 method claims, four of which are

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independent. A large-font copy of the asserted claims is attached to this Brief immediately after the caption page.

On March 15, 2007, the Patent Office granted Microsoft's Request of *Ex Parte* Reexamination and agreed to reexamine all 33 claims of the '573 Patent, based, in part, on six different examples of Emergency Boot (Recovery) Disk art that had not been considered before. (*See* Apx. B., pgs. 352-65).

V. PROPOSED CLAIM CONSTRUCTIONS

A. METHOD: Recover (Use Emergency Boot (Recovery) Disk)

This stage of the recovery process presents the most claim construction disputes, including the two identified in the Introduction of this Brief.

Configure, Configuring, Configured, and Configuration

Claim Language	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
configuring, configuration, configure (claims 1, 5, 7-9, 18, 22-	Configuring: Tailoring hardware and/or software of a particular data processing system. For example (but not limited to), tailoring a particular data processing system to operate with a specific tape backup device.	Configuring: Tailoring the capability based on selection of components
24, 30, 33)	Configuration: The particular combination and set up of hardware and/or software (e.g., an operating system) of a specific data processing system or portion thereof. Configure: Tailor hardware and/or software of a	Configuration: The way in which the capability has been tailored based on selection of components
	particular data processing system. For example (but not limited to), tailor a particular data processing system to operate with a specific tape backup device.	Configure: To tailor the capability based on selection of components
Configured (claims 1, 13, 18, 30, 33)	Tailored hardware and/or software.	Tailored in terms of capability based on selection of components

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Primary Dispute

1. Does Tailoring the System's Hardware and/or Software "Configure" a Data

Processing System, Even If It Does Not "Select Components" In the Process?: This Brief's

Introduction, *supra* at 1, explains this dispute.

Other Disputes

- 2. Are Microsoft's Two Non-Limiting Examples, Taken from the Patent, Helpful to the Jury? Microsoft proposes two examples that are expressly non-limiting: "For example (but not limited to)," Veritas does not deny that these examples are consistent with the meaning of the claim language, but it objects to all examples.
 - 1. "Configuring" The Data Processing System
 Means Tailoring The System's Hardware And/Or
 Software, And Is Not Limited To Selecting Components

State of the Art: The POSA knew that the standard Emergency Boot (Recovery) Disk recovery procedure was designed, in part, to avoid the tedium of re-customizing settings to retailor a computer's hardware and/or software. (*See, e.g.*, Apx. B, pg. 278: <u>Baxter</u>; *id.*, pg. 287: <u>CT-BOOT Manual</u> at 3).

<u>Claims</u>: The claims recite that the data processing system is configured. They say nothing about selecting components as part of that configuring. Rather, they refer broadly to "configure the data processing system," without specifying any particular type of configuring. (*See* '573 Pat. at 9:5-6; 9:66-67; 10:53-54; 11:4-5).

Specification: Nothing in the '573 Patent deviates from the customary meaning of "configure." On the contrary, the patent uses the word "configure" in its ordinary broad sense, to refer to tailoring hardware and/or software, in any manner. (*See, e.g.*, '573 Pat. at 1:18-34; 2:57-3:4; 4:26-46; 5:19-50; 7:13-23; Figs. 3, 5, 6A, 7). The "three to five hours" cited in the patent for tailoring (configuring) a PC ('573 Pat. at 4:13-22) was not needed simply to "select components" (whatever exactly that means).

<u>Prosecution History</u>: Nothing in the prosecution history narrows the claims in the way sought by Veritas.

Extrinsic Evidence: The ordinary meaning of "configuring" is the meaning proposed by Microsoft, not the restricted meaning urged by Veritas. (*See*, *e.g.*, Apx. B, pg. 348:

Computer Professional's Dictionary (1990) ("configure means to modify hardware or software to meet a specific environment or need"); Apx. B, pg. 351: PC Configuration Handbook (1990) ("configure" includes setting switches to indicate various options); Apx. B, pgs. 239-41; 242; 266: Smith TR at 49:13-51:19, 53:14-24, 157:2-21).

<u>Veritas' Construction</u>: Under Veritas' artificial limitation of this claim term, a tailoring operation that fails to "select a component" does not qualify as configuring. Nothing in the patent justifies re-writing the claims in this way.

Veritas' constructions are not only wrong, they are unclear. Neither "select" nor "component" is mentioned anywhere in the patent. Veritas' construction of "configuration" is also unclear: "The way in which the capability has been tailored based on selection of components." A jury would wonder whether this refers to the manner in which the user performed the configuring, or the result, or something else.

Conclusion: Nothing in the state of the art, the alleged invention, the specification, the claims, the prosecution history, or the ordinary meaning even arguably limits the word "configure" to "selection of components" as urged by Veritas. On the contrary, all of this evidence is consistent: to configure a particular data processing system is to tailor its hardware and/or software.

2. Microsoft's Two Non-Limiting Examples, <u>Taken From The Patent, Will Help The Jury</u>

Examples can help define a claim term. *Cf. Abraxis Bioscience, Inc. v. Mayne Pharma* (*USA*), *Inc.*, 467 F.3d 1370, 1378 (Fed. Cir. 2006) ("the proper construction of 'edetate' is EDTA and derivatives of EDTA, <u>such as</u> salts, but not including structural analogs"). To

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clarify the meaning of "configure" in this patent, Microsoft's construction adds the patent's most important example of configuring the data processing system, namely to tailor it to operate with a specific tape backup device. ('573 Pat. at 5:46-50). Veritas does not deny that this example is correct.

Further, Microsoft's construction of "configuration" notes that what <u>might</u> be configured is the operating system. Veritas does not deny the validity of this example either.

Veritas poses two objections to giving the jury examples to help define claim terms. Neither is grounded in logic or law. First, Veritas says that the POSA would not need examples. (Ver. Opening Br. at 23:21-23). That may be, but it is besides the point as the constructions are drafted to be understood by jurors, some of whom will not be skilled in this art. Second, Veritas cites case law that claims should not be limited to optional examples described in the patent. (*Id.* at 23:7-9) That is true, but also besides the point because Microsoft's examples are non-limiting.

"Initializing" And "Using" Steps

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<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
initializing the [first] data processing system (claims 1, 18, 30, 33)	Starting (booting) the operation of the data processing system.	Starting the operation of the [first] data processing system from the second media, and adjusting the starting configuration of the [first] data processing system using the configuration-specific data files, to set up a temporary operating system for use
using the	Configuring hardware and/or software on the data	Starting the operation
configuration-	processing system based on information contained in	of the [first] data
specific data	the configuration-specific data files. For example,	processing system

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<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
files to configure the [first] data processing system (claims 1, 18, 30, 33)	loading a tape backup device driver from the second media to the data processing system's memory (to support later transfer of data from tape to that system's storage device).	from the second media, and adjusting the starting configuration of the [first] data processing system using the configuration-specific data files, to set up a temporary operating system for use
initializing the [first] data processing system from the [a] second media to provide a temporary operating system [and] using the configuration- specific data files to configure the [first] data processing system (claims 1, 18, 30, 33)	Claims 1, 18, and 30 each recite two steps, "initializing" and "using," separated by the word "and." The word "and" is missing in claim 33, but that is a typographical error and properly read, this claim language includes the word "and" in claim 33 as in the other claims. "initializing the [first] data processing system from the [a] second media to provide a temporary operating system": Starting (booting) the operation of the data processing system using an interim operating system located on the second media. "using the configuration-specific data files to configure the [first] data processing system": Configuring hardware and/or software on the data processing system based on information contained in the configuration-specific data files. For example, loading a tape backup device driver from the second media to the data processing system's memory (to support later transfer of data from tape to that system's storage device).	Starting the operation of the [first] data processing system from the second media, and adjusting the starting configuration of the [first] data processing system using the configuration-specific data files, to set up a temporary operating system for use

Primary Dispute

3. Is the Literal and Grammatical Reading of this Claim Language the Correct

<u>Construction?</u> This is the second claim construction dispute described in this Brief's Introduction, *supra* at 2-4.

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Other Disputes

- 4. <u>Is the Omission of the Word "And" in Claim 33 An Error?</u> Claim 33 recites similar language but omits the conjunction "and." Microsoft explains that as a typographical error. Veritas does not address this directly.
- 5. <u>Is Microsoft's Non-Limiting Example Helpful to the Jury?</u> Microsoft's construction includes a non-limiting example from the patent. Veritas objects to all examples.

3. The Literal And Grammatical Reading Of This Claim Language Is The Correct Construction

State of the Art: The POSA knew that the Emergency Boot (Recovery) Disk served at least two distinct functions. First, it allowed the crashed computer to boot up by loading operating system files from the Emergency Boot (Recovery) Disk into the computer's memory as a temporary operating system. Second, it provided enough configuration data to allow the computer to be configured sufficiently to recover data from the backup device.

For example, the CT-Boot implementation stored a partially configured version of the SCO Unix (or SCO Xenix) operating system on the Emergency Boot (Recovery) Disk, with enough configuration information to allow the computer to recover its backed up data. (Apx. B, pg. 287: CT-BOOT Manual at 3). Depicted below is a summary page from that manual. As explained *supra* at 5-6, the POSA reading the '573 Patent application in 1993 immediately would see that its "second media" recovery diskette served the exact same two functions, and would read the claims in that light.

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2 3		The CTAR Boot / Recovery System (hereinalter referred to as "CT-BOOT") is designed to allow quick and easy recovery of your SCO UNIX or XENIX based system in the event of a catastrophic failure. It can also be used as an efficient method for performing the following system maintenance chores
4		Adding, deleting, or resizing hard disk partitions.
4		Adding, deleting, or resizing filesystems.
5		Changing swap space allocation.
6		 Adding hard drive flaws to the bad track map.
7		 Re-organizing files into configuous blocks for optimization and increased performance.
8		 Quickly moving your complete UNIX or XENIX filesystem(s) to a new computer system in the event of a hardware failure or an upgrade to new equipment.
9		 Replace a damaged Masterboot file or boot tracks on a hard disk without loss of data.
10		CT-BOOT bypasses the normal tedious process of installing or configuring a
11	L	system using all of the standard boot disks, adding device drivers, etc., then restoring backup data.
12	_	CT-BOOT works by creating two (2) 5%" (1.2MB) or 3%" (1.44MB) floppy diskette
13		filesystems. The first diskette is referred to as the CTAR Boot Diskette and contains only enough information to boot (start) the system and load the current UNIX or
		XENIX program (kernel). The second is called the CTAR Filesystem Recovery Diskette. It contains a working filesystem with enough information to completely
14 15	L	rebuild your hard disk filesystems, either exactly as they were or with modifications you may specify.
		The CT-BOOT diskettes contain what is essentially a "snapshof" of all the
16		information needed to rebuild your system, including the current kernel with all of it's current device drivers. They should be regenerated any time a significant change is
17		made to your operating system. Such changes include any operation which rebuilds
18	_	the kernel, and anything which adds, deletes, or modifies hard disks or filesystems.
19	L	Note that even a novice can rebuild a crashed hard disk using CT-BOOT. However, users attempting to use this program to make changes in the structure of their filesystems should have a good working knowledge of how the individual UNIX
20		and XENIX programs which perform filesystem manipulation function. Those
21		attempting to change the partition table with the DIVVY command or increase a partition size with FDISK must have a working knowledge of the operation of those programs and understand the consequences of making a mistake.
22		beath one and an analysis and an analysis and an instance of a second
	4	MICROLITE CORPORATION PAGE 3
23	· '	MICHOLITE CONFORMIUM PAGE 3
24	CTAP DO	OCT/EII ECVCTEM DECOVEDY MANUAL (A
25	(brackets a	OOT/FILESYSTEM RECOVERY MANUAL (April 4, 1990) (Apx. B, pg. 284, 287) added)
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<u>Claims</u>: The claim language recites the two traditional functions of the Emergency Boot (Recovery) Disk: boot and configure. Claims 1, 18 and 30 separate these two functions with the conjunction "and." The plain meaning of "and" in the phrase "initializing ... <u>and</u> using" is that there are two separate actions ("initializing" and "using").

The Claims' Boot Clause: Claim 1 recites "initializing the data processing system from the second media to provide a temporary operating system." This participle clause is complete and self-contained. It recites an action ("initializing ... from the second media"), the object of that action ("the data processing system"), and the result of that action on that object ("to provide a temporary operating system").

The recited action is stated broadly: "initializing" means starting or booting ('573 Pat. at 4:41) and "from the second media" means that the data processing system loads operating system files from that second media into memory to boot up.

The action's result is also stated broadly: booting the data processing system from the second media provides an operating system that is "temporary" (as the method later loads another operating system). The claim uses (here and elsewhere) the broad term "provides." It does not say "configures," "installs" or "sets up for use" the temporary operating system.

The Claims' Configure Clause: In the second, separate, participle clause, the claim recites "using [the configuration-specific data files] to configure the data processing system." This clause is complete and self-contained. It has an action (using) that is performed on an object (the configuration-specific data files) to cause a result (to configure the data processing system).

The action of "using [the configuration-specific data files]" is stated broadly. It is <u>not</u> restricted to any particular configuration-specific data files. For example, it does <u>not</u> require these files to include device driver files (*cf.* Claim 9) or operating system configuration files (*cf.* Claim 8). Nor does it require any particular way of using these files to tailor (configure)

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the data processing system. Nor does it require that the files be used during booting of the system, or during any other action.

The action's result (to configure the data processing system) also is stated broadly. It is not restricted to any particular manner in which the data processing system is configured. Nor does it specify that any particular part of the data processing system must be configured. For example, it does <u>not</u> require (or prohibit) that the temporary operating system is configured by the configuration-specific data files.

Relationship of These Two Claim Clauses: Nothing in the grammatical structure of this claim language requires that these two separate participle clauses be merged in any way. No rule of English grammar suggests, for instance, that the result recited in the first clause should be moved to the second clause (as urged by Veritas).

Nor does anything in the substantive content of this claim language require that these two separate participle clauses be merged in any way. As noted, each clause makes perfect sense on its own. Each is self-contained, reciting a (broadly worded) action performed on an object to achieve a (broadly worded) result. Nothing in these actions or results suggests that the result recited in the first clause should be moved to the second clause (as urged by Veritas).

Specification: Veritas' proposed construction tries to restrict the broad claim language by requiring that the configuration-specific files be used to "set up a temporary operating system for use." Its Brief would add still further limitations not expressed in its constructions, such as requiring that the configuring occur during the initializing, that the initializing and configuring be "integrated," and that the operating system must be "dynamically configurable." But, these artificial limitations are not only foreign to the claims, they are foreign to the alleged "invention" of the patent. None of them is an "essential feature" of the patent specification as urged by Veritas.

The specification supports Microsoft's plain-meaning construction of the claim language in at least the following five ways.

First, like the claims, the specification describes the boot and configure functions of the boot and recovery disk separately. For example, the first sentence below maps to the first claim clause in question (boot) and the second sentence maps to the second (configure):

To recover the fully configured operating system onto the hard disk 16, the PC system is started, or booted, from the bootable recovery diskette 52. The system configuration files 20 and device drivers 22 stored on the recovery diskette 52 are used to configure the system and provide the necessary device drivers to activate the PC devices, especially the backup tape drive 26. ('573 Pat. at 4:40-46).

Second, nothing in the specification requires the configuration-specific data files to configure the temporary operating system (as distinct from configuring vis-à-vis other hardware and/or software on the data processing system).

Third, nothing in the specification requires the configuration-specific data files to play a role in the first, "boot" function. On the contrary, the patent describes operating system installation files, not the configuration-specific data files, as being used to boot the temporary operating system:

First, the PC is booted (402) with the latest version of the OS/2 operating system to be restored on the system. This can be accomplished, for instance, by booting the system from the appropriate OS/2 installation diskette. (Id. at 7:8-12; see also id. at 4:32-34).

Fourth, nothing in the patent limits the "operating system" to being a "dynamically configurable" operating system, as suggested by Veritas.³ On the contrary, the patent says that its technique works with a variety of operating systems (and names Unix as well as Microsoft's MS-DOS and Windows 3.x operating systems, OS/2 "or another operating system.") ('573 Pat. at 3:46-50).

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If Veritas truly thought that the patent and its claims limited "operating system" to a "dynamically configurable" operating system, it was up to Veritas to seek that construction of the claim term "operating system." But, Veritas did not do that. Therefore, the Court should presume that the claim term "operating system" means any operating system.

Fifth, nothing in the patent requires a particular manner of storing or using the device driver files. As the patent applicant Gonsalves testified in deposition, whether the driver is or is not part of the operating system on the recovery diskette is "irrelevant to successfully achieving the ['573] patent." (Apx. B, pgs. 196-97: Gonsalves TR at 166:15-167:14).

Veritas cites this language from the specification: "initializing the data processing system from the second media to provide a temporary operating system using the configuration-specific data files." (Ver. Opening Br. at 15:9-11). This language does not compel Veritas' attempted re-write of the claim language, for several reasons. First, it states that the temporary operating system is provided by initializing (booting) the data processing system (not by the configuration-specific data files), which supports Microsoft's reading of the claims. Second, it does not restrict the operating system to a dynamically configurable operating systems, as urged by Veritas. Third, while unclear on this point, it suggests that the temporary operating system uses the configuration-specific data files (in some unspecified manner), which is not contrary to Microsoft's position. Finally, and most importantly, it is not the final wording used in the issued claims. As described below, the claims originally had somewhat similar language, but were later amended to add the word "and" between the two clauses.

In sum, the specification supports Microsoft's literal reading of the claim language, not Veritas' attempted re-write of that claim language.

<u>Prosecution History</u>: The prosecution history also supports Microsoft's construction, in at least four ways.

First, the Applicants added the word "and" by amendment to separate these two clauses. (Apx. B, pgs. 27-28: Amendment [10/28/94] at 2-3). As the word was deliberately inserted into the claim, it cannot now be ignored. Moreover, in quoting to the Examiner this claim language in <u>each</u> independent claim, Applicants inserted the "and" separating the two clauses, even though it is missing from issued Claim 33. (*Id.* at 34-35: Amendment [10/28/94]

at 9-10). This concretely confirms the Applicants' contemporaneous understanding and position that these were two separate clauses.

Second, Applicants presented a new application claim 33 (later cancelled) in which they again recognized that boot and configure functions may be separate:

Independent claim 33 recites a diskette that is insertable into a workstation and that boots, activates, configures and recovers the fully configured operating system of that workstation from a backup system, e.g., a tape drive. (Apx. B, pg. 35: Amendment [10/28/9] at 10).

Specifically, independent claim 33 recites a recovery diskette that is insertable into a workstation and includes (i) means for booting the workstation under a temporary operating system and (ii) device driver means to activate the data backup system. The diskette further includes (iii) configuration means for configuring the workstation and (iv) recovery means for loading files from the backup system to the workstation. (Apx. B, pgs. 36-37: Amendment [10/28/94] at 11-12).

These Remarks by the Applicants confirm that the recovery disk has some files used in booting the data processing system (which puts a temporary operating system into memory), and has other files used to configure the workstation, and that "boots" and "configures" may be separate actions.

Third, in distinguishing prior art, Applicants described the role of the configuration-specific data files as supporting later transfer of data from the backup media—which is Microsoft's position—not to assist booting the computer—as Veritas urges. They confirmed this both in describing a recovery scenario:

In such an event [system disk corruption], a "temporary operating system" is installed from a recovery diskette, i.e., the "second media," together with a number of files, i.e., the "configuration specific data files," necessary to support transfer of data between the storage device and the back-up system or "first media," e.g., a QIC or DAT tape cartridge located in a backup device such as a tape drive. (Apx. B, pg. 33: Amendment [10/28/94] at 8).

and also in describing a "target configuration" scenario:

A "temporary operating system" is installed onto each computer system from a "second media," together with a number of files, i.e., the "configuration-

specific data files," necessary to support transfer of data between each computer system and the "first media" of the target configuration. (*Id.*)

Veritas ignores all of the above prosecution history support for Microsoft's position. Instead, it seeks support in a later passage in the same Amendment:

In accord with the invention, therefore, the temporary operating system is booted via the second media, e.g., a floppy disk, and the remaining operating system folders are restored from the first media, e.g., the backup tape, by the data processing system, e.g., the computer workstation. This solves the problem of how to boot a system that has no operating system or which has a corrupted operating system. Further, the temporary operating system is configured by the data processing system using the configuration specific data of the second media; and the fully configured operating system is loaded by the data processing system using the temporary operating system. (Apx. B, pg. 35: Amendment [10/28/94] at 10).

In this passage, Applicants again discuss booting (with the temporary operating system) separately from configuring. They also mention the data processing system configuring the temporary operating system, but they do not tie that to any particular claim, and in fact no claim mentions either the data processing system doing configuring or the temporary operating system being configured. Thus, this one passage does not clearly rebut the several claim amendments and Remarks supporting Microsoft's literal reading of the claim language.

Fourth, the Examiner read the term "initializing" in the independent claims broadly, equating it with "booting." (Apx. B, pg. 24: Office Action [06/29/94] at 3).

Extrinsic Evidence: Nothing in the plain meaning of any of the words in these two clauses supports any of Veritas' re-writing of the claim language.

With fanfare, Veritas quotes an <u>incomplete part</u> of a statement made by a Microsoft attorney, more than eight years after the '573 Patent issued, to distinguish McGill as prior art. The statement is immaterial to the claim construction issue before the Court. It did not purport to construe any claim language, or even purport to identify features in the specification that were "essential" or "critical" to the alleged invention in the '573 Patent. Moreover, Veritas cutoff the rest of the sentence. The omitted portion ("<u>for loading a recovery application</u>

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CV 06-0703 JCC DEFENDANT MICROSOFT CORPORATION'S RESPONSIVE CLAIM CONSTRUCTION BRIEF REGARDING U.S. PATENT NO. 5,469,573

program from the backup device that, in turn, loads the operating system, configuration files, and device drivers from the backup device") (Veritas Apx. C at 347) shows that the attorney's description of the restore operations differs from Veritas' description.

<u>Veritas' Construction</u>: Throughout its Brief and in its proposed construction, Veritas scrambles the plain and grammatically clear structure and meaning of these two participle clauses. For example, Veritas ignores the conjunction "and" that was added by amendment to explicitly separate these two clauses, moves the recited result of the first clause (namely "provide a temporary operating system") to the second clause, and otherwise re-writes the claim to require that the temporary operating system be "set up" (per Veritas' re-write) not only by initializing the data processing system but also by using the configuration-specific data files.

Conclusion: Microsoft's construction tracks the literal wording and grammatical structure of the claim, while Veritas scrambles the claims' two separate clauses together, changing the meaning of each. Microsoft's construction also tracks the description in the specification and prosecution history, while Veritas would import limitations that are foreign to the claims, the specification, and the prosecution history. Finally, Microsoft's construction honors the POSA's "state of the art" lens, while Veritas instead takes an "avoid the art" sledgehammer to the claims.⁴

4. The Omission Of The Word "And" In Claim 33 Was An Error

Claim 33 recites "initializing the data processing system from a second media, having configuration-specific data files, to provide a temporary operating system using the configuration-specific data files to configure the data processing system." While unclear as written, it appears to have two separate participle clauses; in the first, the temporary operating system is provided by booting the data processing system from the second media, and in the

Not even Veritas' re-writing of the claims actually avoids the prior art.

second, the data processing system is configured using the configuration-specific data files—as in the other claims. But, the conjunction "and" is missing between the two clauses. That was an error in the patent.⁵ As noted above, Applicants included the missing "and" in this claim 33 [which at the time was application claim 34] when they quoted it to the Examiner:

In particular, note that Applicants claims 1, 18, 30 and 34 include the steps of 1) "initializing the ... data processing system from the second media ... to provide a temporary operating system <u>and</u> using the configuration-specific data files to configure the data processing system" and (2) "loading the fully configured operating system files from the fist media ... using the temporary operating system" and such steps (1) and (2) are absent from Ottman et al. (Apx. B, pgs. 34-35: Amendment [10/28/94] at 9-10).

The specification does not always use the word "and" to separate the two clauses, but the word was added to the claims to clarify this point. (*See* Apx. B., pgs. 30-31: Amendment [10/28/94] at 5-6 ("Other minor amendments were made in claim 1 for clarity and which either rearranged words or deleted unnecessary words.") The Court should not now, more than twelve years later, undo the Applicants' editing of the claim language on which the Examiner and public were entitled to rely.

5. <u>Microsoft's Non-Limiting Example Is Helpful To The Jury</u>

Microsoft's non-limiting example for the configuring action (loading a tape backup device driver ...) is taken from the patent. (*See*, *e.g.*, '573 Pat. at 5:42-46). It is what the patent identifies as the "most important" driver on the recovery diskette. This non-limiting example will help the jury understand this claim language.

⁵ The patent has several typographical errors, such as "fries" for "files" in Claim 30, and "the first operating system" in Claim 31.

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Page 27 CV 06-0703 JCC DEFENDANT MICROSOFT CORPORATION'S RESPONSIVE CLAIM CONSTRUCTION BRIEF REGARDING U.S. PATENT NO. 5,469,573

"Configuration-Specific Data Files"

<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
configuration- specific data files (claims 1, 5, 7-9, 18, 22- 24, 30, 33)	Files collectively providing necessary information to configure the specific data processing system as required for loading from a media an operating system configured for that system. Examples of such files are a tape backup device driver, a restore program for a specific device, and/or a text file specifying configuration parameters.	Data files that are used to configure in a distinctive manner

Primary Dispute

6. How Much "Configuring" Needs to Be Enabled by the Configuration-Specific Data Files? Each party defines this term primarily by the function it serves. Microsoft's construction is more specific than Veritas' construction.

Other Disputes

- 7. Are Microsoft's Non-Limiting Examples Correct and Helpful to the Jury?

 Microsoft proposes three non-limiting examples. Veritas objects to all examples, and disputes the validity of one of Microsoft's examples.
 - 6. The Configuration Files Need To Provide
 Only Enough Information To Allow The
 Computer To Recover Its Data From The Backup Device

State of the Art: As noted, the standard Emergency Boot (Recovery) Disk stored whatever information would be needed by the post-crash computer to recover data from the backup device. (*See*, *e.g.*, Apx. B, pg. 88: Lary Decl. at 9:14-15; Apx. B, pg. 287: <u>CT-BOOT Manual</u> at 3).

<u>Claims</u>: The claims imply that enough configuration information is needed to allow the steps of the method to be performed.

Specification: The function served by the configuration data stored on the patent's Emergency Boot (Recovery) Disk was to configure the computer, post crash, just enough to

restore data from the back-up device. For example, after listing the types of files that might be saved to the recovery disk, it notes: "The most important device driver is the backup device driver, e.g., backup tape drive device driver, which must be available to activate the backup tape drive during the recovery or loading operation." ('573 Pat. at 5:46-50).

<u>Prosecution History</u>: During prosecution, in distinguishing prior art, the Applicants noted this function served by the claimed "configuration-specific data files":

In such an event, a "temporary operating system" is installed from a recovery diskette, i.e., the 'second media,' together with a number of files, i.e., <u>the</u> "configuration specific data files," necessary to support transfer of data between the storage device and the back-up system or "first media" ... (Apx. B, pg. 33: Amendment [10/28/94] at 8).

Veritas cites a similar passage from the prosecution history to supposedly support its construction, but, in fact, that passage repeats Microsoft's point: "necessary to support transfer of data between each computer system and the 'first media.'" (*See* Ver. Opening Br. at 21:20-25).

Extrinsic Evidence: Microsoft agrees with Dr. Smith's testimony that Claim 1 requires only enough configuration-specific data to be stored on the second media "to be sufficient information to perform the subsequent steps" (Apx. B, pgs. 229-31: Smith TR at 27:1-6, 27:22-28:1, 28:21-29:5) and, in particular, (only) "whatever drivers and configuration information will be needed to access the backup media." (*Id.*, pgs. 250-51: Smith TR at 116:24-117:14).

Veritas' Construction: Veritas' construction is incomplete and unclear. "Data files that are used to configure in a distinctive manner" does not explain what is to be configured or how "distinctive" is measured. Thousands of computers may be given the exact same configuration. Will the jury conclude that each is "distinctive"? Does configuring in a "distinctive manner" require more configuring than is required by Microsoft's construction? Less? Dr. Smith seems to think that "distinctive" effectively means nothing and that there is

no such thing as a configuration that is not distinctive. (*Id.*, pgs. 258-59: Smith TR at 138:25-139:16). The odds of the jury being confused by "distinctive manner" are too high.

Veritas concedes that "configuration-specific data files" can "be used to support the transfer of data between the computer system and the backup media," but argues that the "as required for loading" language is too limiting. (Ver. Opening Br. at 7-11). But Veritas' criticism reads out essential features of the patent. Both the patent specification and prosecution history plainly show that the most important aspect of the "configuration-specific data files" is that they "provide the necessary information to configure the specific data processing system as required for loading from a media an operating system configured for that system."

Conclusion: In this patent, the configuration data put on the second media must be sufficient to allow the computer to later retrieve data from the first media. Anything less, and the alleged "invention" simply won't work. A POSA would understand this when reading the claims, and the Court's construction should reflect this.

7. Microsoft's Non-Limiting Examples Are Correct And Will Help The Jury

"Tape Backup Device Driver" Example: The patent expressly refers to a tape backup device driver as a configuration-specific data file. (*See*, *e.g.*, Claim 9). Dr. Smith agrees with Microsoft that a tape backup device driver is an example of a configuration-specific data file. (*See* Apx. B, pg. 260: Smith TR at 140:8-13).

"Text File Specifying Configuration Parameters" Example: This example is based on the patent's reference to the file "Config.sys." ('573 Pat. at 5:50-52). The file "Config.sys" is a text file specifying configuration parameters. (*See* Apx. B, pg. 261: Smith TR at 141:3-20). Examples of these parameters are described in an exhibit submitted by Dr. Smith (Exhibit 5), for OS/2. The parties agree that it is a configuration-specific data file. But, rather than refer in

the claim construction to "config.sys"—which is used only with particular operating systems—Microsoft refers to it more generically as a "text file specifying configuration parameters."

"Restore Program for a Specific Device" Example: In the patent, a restore program is stored on the boot and recovery disk, and is needed for the recovery procedure to work. It is not, however, expressly referred to as a "configuration-specific data file." Nevertheless, the patent implies that adding an application program to a data processing system (as depicted in Figure 2) "configures" that data processing system (e.g., a PC): "Prior to performing a recovery or loading operation with this invention, a PC is fully loaded and configured (100) as desired with the operating system, device drivers, configuration files, and application software including a tape backup program." ('573 Pat. at 5:19-24). This usage is consistent with the state of the art. (See Apx. B, pg. 328: Central Point Manual at 280 (identifying several "configuration files" that are part of the Central Point backup and restore program).)

B. Dependent Claims 7-9, 22-24 Recite Three Examples Of Configuration-Specific Data Files

<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
system configuration files (claims 7-8, 22-23)	Files providing information about the set up of hardware and/or software in a specific data processing system. Examples of such files are a restore program for a specific device, a file specifying the location of device drivers, and/or a file specifying the location, number and/or size of partitions on the hard disk.	Data files that are used to configure the data processing system in a distinctive manner
operating system configuration files (claims 8, 23)	Files providing information about the set up of a specific data processing system's operating system. Examples of such files are a file specifying the location of device drivers and/or a file specifying the location, number and/or size of partitions on the hard disk.	Data files that are used to configure an operating system in a distinctive manner
device driver files	Files that can be used by a data processing system to activate one or more devices attached to the data	Data files that are used to configure the

<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
(claims 9, 24)	processing system, such as a tape backup device.	data processing system in a distinctive manner by activating devices

1. Microsoft's Non-Limiting Examples for "System Configuration Files" And "Operating System Configuration Files" Are Correct and Helpful to the Jury

The parties' constructions here are close. The biggest difference is that Microsoft tries to help the future jury by providing non-limiting examples, whereas Veritas' constructions leave too much ambiguity with its "distinctive manner" terminology.

Veritas argues that Microsoft's proposed example of "a file specifying the location, number and/or size of partitions on the hard disk," is not in the patent. (Ver. Opening Br. at 26:2-6). But, the POSA knew that this was common information to store on an Emergency Boot (Recovery) Disk. (Apx. B, pgs. 278-82: <u>Baxter</u>). The '573 Patent, moreover, describes partitioning the hard drive into multiple partitions and formatting the partitions. ('573 Pat. at 7:15-52; Claims 15-17, 27-29). That's configuring the data processing system.

2. The Court Should Adopt Microsoft's Construction Of "Device Driver Files"

Microsoft's construction tracks the patent closely. For example: "The system configuration files 20 and device drivers 22 stored on the recovery diskette 52 are used to configure the system and provide the necessary device drivers to activate the PC devices, especially the backup tape drive 26." ('573 Pat. at 4:42-46). Veritas' construction suggests that the only way that the device drivers configure the system is by activating devices, but that is wrong. The mere act of loading the correct hardware and software on the system tailors it, whether that hardware and software is used or not. (See, e.g., '573 Pat. at 5:19-24). And, Veritas' "distinctive manner" terminology would only cloud the meaning of the claims.

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C. METHOD: Prepare (Create Backup) And Recover (Restore From Backup)

These two steps correspond closely. To prepare for a system crash, one backs up data to the first media. To recover from a crash, one recovers that data from the first media. Together, they raise the following claim construction disputes (the term "fully configured operating system" is discussed in Section VI *infra*):

<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
providing a first media comprising operating system files for installing the fully configured operating system onto the storage device (claim 1)	Providing a first media storing operating system files such that they can be loaded from the first media to the storage device. As a result of this "providing" step and the subsequent "loading" step, the "fully configured operating system" becomes present on the storage device. This claim limitation excludes restoring a bit mapped image of the operating system. As noted elsewhere, the phrase "fully configured operating system" is indefinite in the '573 patent claims.	No further construction is necessary, except for terms already construed
loading the fully configured operating system files from [the/a] first media (claims 1, 13, 18, 30, 33)	Loading operating system files from the first media to the storage device, such that the "fully configured operating system" becomes present on the storage device. This claim limitation excludes restoring or loading a bit mapped image of the operating system.	No further construction is necessary, except for terms already construed
loading to install the fully configured operating	Loading operating system files from the first media to the storage device, such that the "fully configured operating system" becomes present on the storage device.	No further construction is necessary, except for terms already construed

<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
system (claims 18, 30)	This claim limitation excludes restoring or loading a bit mapped image of the operating system.	
loading for installing the fully configured operating system (claims 33)	Loading operating system files from the first media to the storage device, such that the "fully configured operating system" becomes present on the storage device. This claim limitation excludes restoring or loading a bit mapped image of the operating system.	No further construction is necessary, except for terms already construed

The Above "Providing" and "Loading" Steps

Primary Dispute

1. Must The First Media (Backup Device) Store the Entire, "Fully Configured"

Operating System? These steps raise the question of what must be stored on the first media.

Must it store the "fully configured operating system?" Or, alternatively, may it store only enough of the operating system to provide a "fully configured operating system" on the storage device when combined with whatever operating system files are loaded from the Emergency Boot (Recovery) Disk? Veritas asks the Court not to construe this claim language.

Other Disputes

2. Do These Claim Steps Preclude Restoring a Bit Mapped Image of the Operating System? Microsoft asks the Court to answer this question in the affirmative. Veritas asks the Court not to construe this claim language.

1. The First Media (Backup Device) Need Not Store The Entire "Fully Configured" Operating System

Microsoft's constructions of these claim phrases provides the same answer that Applicant Gonsalves provides, which is consistent with the state of the art at the time.

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Claims: The claim language is unclear on this point. The first "providing step" recites that the first media comprises "operating system files," not "fully configured operating system files." But then it adds the functional language "for installing the fully configured operating system onto the storage device." Microsoft's construction attempts to reconcile this seemingly conflicting terminology.

Specification: The patent discloses that all or some of the files on the PC may be backed up. ('573 Pat. at 5:32). It does not, however, explain what it means by "fully configured operating system."

<u>Extrinsic Evidence</u>: Applicant Gonsalves testified in deposition that backing up "all of the files" in the '573 Patent did not necessarily mean backing up all of the operating system files. (*See* Apx. B, pgs. 203-06: Gonsalves TR at 174:23-177:20).

Veritas Construction: Veritas asks the Court not to construe either of these phrases.

<u>Conclusion</u>: While the restore operation needs to install the "fully" (whatever that means) configured operating system onto the storage device, the claims do not seem to require that "fully" configured operating system to be stored on the backup media.

2. These Claim Steps Preclude Restoring A Bit Mapped Image Of The Operating System

This portion of Microsoft's construction is based on the following language in the specification, in which the Applicants distinguished their "invention" from "image restoration" of an operating system backed up on a bit-mapped basis:

Data backup systems are known which restore high capacity hard disks from a digital image of that hard disk, i.e., on a media bit-mapped basis. This type of image restoration may be able to restore an operating system to fixed storage media since the operating system is simply some portion of the total image being restored. However, any reformat or repartition of the hard disk, which is typically required after a head crash or other problem affecting the integrity of the media, can change the underlying logical structure of the hard disk which may make it impossible to restore a digital image to the hard disk without losing data.

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SUMMARY OF THE INVENTION

<u>The present invention</u> provides a data backup procedure and apparatus for backing up and restoring, or otherwise loading a fully configured operating system to the high capacity storage device (e.g., hard disk) of a computer workstation, such as a personal computer. <u>The operating system can be restored regardless of whether the high capacity storage device has been reformatted, repartitioned, or otherwise replaced with an equivalent device. ('573 Pat. at 1:55-2:17).</u>

Nothing in the patent purports to solve the above-described purported problem with image restoration. Instead, it seeks to match some of the benefits of image restoration, using non-image based files. Thus, this language disclaims restoring or loading a bit mapped image of the operating system.

D. <u>METHOD: Recover (Re-boot And Use The Restored System)</u>

This stage introduces two claim construction disputes:

Claim Language	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
Install (claims 1, 18, 30, 33)	 The claims use this word in the following two different ways, at different locations in the claims: (1) Place digital information (e.g., software) into a computer's storage device such that it is ready to be loaded into the computer memory and used by the computer. ('573 Pat. at 8:66, 10:6, 10:57, 12:2). (2) Load digital information (e.g., software) into a computer's memory for use by the computer. ('573 Pat. at 9:11, 12:5). 	Set up for use
reinitializing to install the fully configured operating system (claims 1, 33) reinitializing to provide the fully	Restarting (re-booting) the operation of the data processing system to install the operating system loaded onto the storage device into memory on the data processing system.	Restarting the operation of the data processing system from the storage device to set up a fully configured operating system for use

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Claim Language	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
configured operating system (claim 18)		

"Install"

Veritas' proposed construction "set up for use" is too cryptic to be helpful. Microsoft's proposed constructions track the literal claim language, and reflect that "install" has a different connotation when used in connection with a storage device such as a hard disk versus memory. Dr. Smith concedes that Microsoft's constructions are "entirely consistent" with Veritas' construction. (Apx. B, pg. 137: Smith Report at 38, ¶70).

"Reinitializing ..."

The parties' constructions of this claim language are close, but Microsoft is more specific. Veritas' reference to "a" "fully configured operating system" is unclear on whether this is the same "fully configured operating system" referenced earlier in the claim. Also, "set up for use" is unclear.

E. The Claim As A Whole

The main point of claim construction is to explain the claimed invention to the jury. While that explanation will define individual claim terms, it is not limited to creating a mini dictionary. Frequently, a patent claim construction explains the meaning of the claim as a whole, such as defining the order of its different steps. *Power Mosfet Technologies, LLC v. Siemens AG*, 378 F.3d 1396, 1404, 1410, 1412 (Fed. Cir. 2004) ("The terms in the Special Master Report were construed in isolation, and at no other time did the district court or the Special Master construe the claims as a whole." This "limited construction left substantial ambiguity as to the meaning of the claims as a whole." "A construction of the claims as a whole would have been beneficial to the litigants")

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1. Claims 1, 18, 33 Are Directed To Recovery Of An Operating System That Becomes Corrupted Or Inoperative; They Do Not Cover The Factory Loading Scenario

Applicants made this point repeatedly in the prosecution history. (Apx. B, pgs. 31-36: Amendment [10/28/94] at 6-11). Applicants told the Patent Office that these claims were directed to crash recovery, and that another set of claims was directed to factory loading. Their statements should be mirrored in the Court's claim construction. Otherwise, the jury will decide the case based on a claim scope that the Patent Office never granted.

2. The Claims Require That The Loading Of The Fully Configured Operating System Be Accomplished By The Data Processing System Itself, Rather Than By Some Other Computer From Which That Operating System Is Transferred

This is another requirement specified in the prosecution history. Applicants distinguished the Ottman reference on this ground:

Instead, the loading of the operating system into the transferee computer of Ottman et al. is accomplished by the transferor computer and not by the transferee computer. See col. 4, lines 27-31. Applicants specifically claim 'loading the fully configured operating system files from the first media ... using the temporary operating system,' claims 1, 18, 30 and 34. (*Id.*, pg. 35: Amendment [10/28/94] at 10).

Again, the jury needs to be told about this to fully understand the claimed invention. Veritas offers no different reading of the prosecution history.

3. <u>Each Step May Be Performed Manually</u>

The prosecution history makes this point clearly. In an initial Office Action, the Patent Office rejected all claims as indefinite, at least in part because the application was "unclear" as to whether the claimed steps were to "be performed by a data processing mean, some specific means, or by a human user?" (Apx. B, pg. 23: Office Action [06/29/94] at 2). In response, the applicants argued around that rejection by telling the Patent Office that the claims were broad enough to cover any of these possibilities: "Applicants suggest that such additions are

narrowing limitations which unnecessarily limit the full scope of the invention entitled to the Applicants." (Apx. B, pg. 30: Amendment [10/28/94] at 5). (*Accord* Smith TR at 146:16-25, 147:2-21).

Again, Veritas offers no different reading of the prosecution history.

4. The Steps May Be Performed Far Apart In Time

Nothing in the claims' language requires their steps to be performed near in time to each other. (*Accord* Apx. B, pg. 227: Smith TR at 12:13-19).

F. Claim Terms Referring To Physical Devices

The claimed methods move certain information to and from three physical devices.

<u>Claim</u> <u>Language</u>	Microsoft's Proposed Claim Construction	Veritas' Proposed Claim Construction
storage device (claims 1-3, 5, 10, 13-16, 33)	A data processing system's device for storing software and other digital data, such as a magnetic media hard disk drive, flash memory, or optical laser disk. The storage device may have one or more partitions. The storage device is physically distinct from both the first media and the second media.	Mechanism for performing the functions of accepting, retaining, and emitting data
first media (claims 1-3, 13, 18-19, 30-33)	A data storage material, such as a magnetic tape, optical disk, or secondary hard disk. The first media is physically distinct from both the storage device and the second media. The first media may consist of multiple physical units (such as multiple tapes or disks).	Media: any readable or writable data storage area
second media (claims 1, 5, 18, 30, 33)	A removable data storage material (such as a floppy diskette, optical disk or non-volatile solid state memory module) from which the data processing system may be started (booted). The second media is physically distinct from both the storage device and the first media. The second media may consist of multiple physical units (such as multiple floppy diskettes).	Media: any readable or writable data storage area

Primary Dispute 1 1. Are the Storage Device, First Media (Backup), and Second Media (Emergency Boot 2 (Recovery) Disk) The Same Single Physical Device? Microsoft's constructions clarify that 3 these three devices are physically distinct from each other. Veritas' constructions apparently 4 5 allow them to be the exact same, single device. 6 Other Disputes 7 2. May the First Media (Backup) and Second Media (Emergency Boot (Recovery) Disk) Each Comprise Multiple Physical Units? Microsoft's construction clarifies that "media" 8 9 may be more than one unit. Veritas' construction is unclear on this point. 3. Is the Second Media (Emergency Boot (Recovery) Disk) Bootable? The second 10 media in the patent must be bootable. Microsoft includes this important characteristic in its 11 construction of "second media." Veritas does not. 12 4. Is the Second Media (Emergency Boot (Recovery) Disk) Removable from the Data 13 Processing System? The second media in the patent must be removable from the data 14 processing system. Microsoft includes this characteristic in its construction of "second media." 15 Veritas does not. 16 5. What is the Function of the Storage Device? The parties describe the function of the 17 "storage device" in slightly different terms. 18 6. Will Giving Non-Limiting Examples Help the Jury? Microsoft gives non-limiting 19 20 examples to explain the claim language to the jury. Veritas resists all illustrative examples. 21 1. The Storage Device, First Media (Backup), And Second Media (Emergency Boot (Recovery) Disk) 22 Are Physically Distinct, And Not The Same Physical Thing 23 State of the Art: The standard Emergency Boot (Recovery) Disk recovery procedure 24 required three separate storage devices: (1) a removable back-up storage device, often tape; 25 (2) the removable Emergency Boot (Recovery) Disk; and (3) the computer's hard drive. 26 27

Veritas has pointed to no Emergency Boot (Recovery) Disk technique from 1993 or earlier that combined any of these three devices into a single storage device. Thus, the POSA reading the '573 Patent application would have expected three physically separate storage devices unless the patent clearly stated otherwise.

<u>Claim Language</u>: The claims use the terms "first media," "second media," and "storage device" to refer to the three separate devices used in the standard Emergency Boot (Recovery) Disk recovery procedure. Nothing in the claims suggests that any of these three are or could be the same unit.

Specification: The patent tracks the standard Emergency Boot (Recovery) Disk procedure closely. It describes and depicts these devices as being physically distinct, as shown in Fig. 2. This separation is not merely preferred. <u>All</u> embodiments in the patent physically separate these three storage media devices. No embodiment combines any two of the three into a single unit.

Moreover, these three storage media <u>must</u> be different to achieve the functions described in the patent. The patent anticipates total failure, theft, or destruction of the hard disk. Therefore, the first media and second media must not be part of that hard disk or they will be unavailable for recovery purposes. It would make no sense to put either backup data or emergency data on the very device you feared would crash. Likewise, the patent assumes an inability, post crash, to retrieve data from the first media (e.g., for lack of the correctly configured device driver), so by definition the "invention" cannot work if the second media is physically part of that inaccessible first media.

Other Extrinsic Evidence: Mr. Lary, an expert in the design and implementation of complex storage systems (Apx. B, pg. 157: Lary TR at 28:14-23), testified to the significance of keeping the different media "physically distinct." (*Id.*, pgs. 159-65: Lary TR at 59:22-65:13). In deposition, Dr. Smith conceded that the possibility of merging two or more of these

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three devices into a single device was not "specifically enumerated" in the '573 Patent. (Apx. B, pgs. 256-57: Smith TR at 135:22-136:20).

<u>Veritas' Constructions</u>: Veritas says that the first or second media may be only a portion of the total storage available on a particular physical object. (Ver. Opening Br. at 41:17-19). But, Veritas cites nothing in the patent as support. In fact, when the patent refers to logically distinct portions of a storage device or media (*see*, *e.g.*, '573 Pat. at 7:13-43; *see also* Ver. Opening Br. at 42:3-17), it refers to "partitions," not to separate devices or separate media. A logical partition of a hard disk does not create two separate hard disks. (*See* Apx. B, pg. 255: Smith TR at 132:16-22 (a single storage device can have multiple partitions)).

Conclusion: In sum, the state of the art known to the POSA, the functions to be performed by the invention, the patent's written description and drawings, and the claims support Microsoft's construction that these three devices are physically distinct from each other. Allowing them to be the exact same, single device, would broaden the claims beyond the "invention" disclosed in the patent.

2. Each of the First Media (Backup) And Second Media (Emergency Boot (Recovery) Disk) May Comprise Multiple Physical Units

The patent states explicitly (and depicts in Fig. 2) that the second media may comprise multiple disks: "Depending on the type of operating system to be loaded onto the hard disk, the recovery diskette can actually be a set of several recovery diskettes, each diskette containing a particular sub-set of files." ('573 Pat. at 4:53-65; *see also* Fig. 2). And, it says that backup media may be a "media set." (*Id.* at 5:32-33). Nothing in the claims, state of the art (*see, e.g.*, Apx. B, pgs. 287, 291: <u>CT-BOOT Manual</u> at 3, 7), or prosecution history is to the contrary.

Under Veritas' proposed construction, the jury might mistakenly believe that "first media" and/or "second media" is limited to a single physical object. The Court should help the jury avoid that mistake.

3. The Second Media Is Bootable

The claims say that the data processing system is initialized from the second media, which requires it to be bootable. In all embodiments, the recovery diskette is bootable. The standard Emergency Boot (Recovery) Disk was bootable. Veritas has pointed to no exception.

A defining characteristic of the second media in the patent is that it is bootable. The alleged invention simply won't work without the Emergency Boot (Recovery) Disk being bootable. The jury should be told this in the construction.

4. The Second Media (Emergency Boot (Recovery) Disk) Is Removable

State of the Art: The standard Emergency Boot (Recovery) Disk was removable from the data processing system. (*See* Apx. B, pgs. 278-328). Veritas has pointed to no exception. Thus, the POSA reading the '573 Patent application naturally would have assumed that the "second media" is also removable, unless clearly described otherwise in the patent.

Claims: Dependent Claim 11 recites: "wherein the second media comprises a removable diskette." This raises a question under the doctrine of claim differentiation: does Claim 11 mean that the "second media" in the <u>independent</u> claims need not be removable? The answer is No. Rather, it means only that the independent claims do not limit the "second media" to a "removable diskette." Microsoft's construction abides by this conclusion and includes a removable "memory module" within the scope of the independent claims.

Specification: All embodiments in the patent have the second media removable. The patent repeatedly refers to "inserting" the recovery diskette. (*See, e.g.*, '573 Pat. at 6:22-25; 7:13-15; Fig. 6A). The threats anticipated by this alleged invention include theft of the computer or fire destroying the computer. Obviously, these events would incapacitate any "second media" permanently attached to the computer. Veritas' argument that "media" in the

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abstract can be both removable and non-removable (Ver. Opening Br. at 42:18–43:9), misses the point, and fails to rebut that the claimed "second media" must be removable for the claimed method to work for its described purposes.

<u>Veritas' Construction</u>: Veritas' incomplete construction ignores this question.

<u>Conclusion</u>: The '573 patent's "second media," is removable. The Court's construction should include this characteristic.

5. The Function Of The Patent's Storage <u>Device Is To Store Software And Other Digital Data</u>

The parties are close on this issue. Each includes in its construction of "storage device" the function performed by the device. But the parties' respective descriptions of that function differ slightly. Veritas' version (accepting, retaining, and emitting data) is not wrong as far as it goes, but Microsoft's (storing software and other digital data) is more specific to the claims in question. (*See* Apx. B, pg. 255: Smith TR at 132:2-14 (in Claim 1, a function of the storage device is to store software and other digital data)). Microsoft does not object to merging the two versions as follows: "A data processing system's device for accepting, storing, and emitting software and other digital data ..." (and then continuing with the rest of Microsoft's construction).

6. <u>Microsoft's Non-Limiting Examples Will Help The Jury</u>

To help explain its alleged invention, the patent gives examples for each of the devices in question. Microsoft's constructions follow suit, using, for the most part, examples recited in the patent. Those examples should be helpful to the jury in understanding the claims' scope. Neither Veritas nor its expert Dr. Smith disputes the accuracy of any of Microsoft's examples. (E.g., Apx. B, pgs. 252-54: Smith TR at 129:22-131:2 (Claim 1's "storage device" could be a magnetic media hard disk, or a flash memory device, or an optical disk)).

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Veritas knows the value of examples in claim constructions. Three of the agreed constructions <u>include non-limiting examples</u>. (Apx. A: Agreed Constructions for "loading;" "initializing the disk drive;" and "initializing the storage device").

Microsoft asks the Court to give the jury all the help it needs to fully understand these claims.

G. Additional Claim Construction Issues Presented by Claims 30 and 31

1. <u>Claim 30 Does Not Require Factory Loading</u>

Claim 30 requires two data processing systems. It does not require more than two and it does not require that the process occur in a factory. Although Applicants told the Patent Office that Claim 30 encompassed the factory loading scenario (Apx. B, pg. 31: Amendment [10/28/94] at 6), they did not say that the claim was <u>limited</u> to loading in a factory. Dr. Smith agrees that the claim is not so limited, and agrees that Claim 30 covers a situation in which the first data processing system is nothing more than the second data processing system with a new hard drive. (Apx. B, pgs. 232-33: Smith TR at 31:23-32:19). Microsoft's construction explains both of these points to the jury.

2. <u>Limiting To A Predetermined Quantity</u>

Dependent Claim 31 adds the limitation "limiting to a predetermined quantity the number of times the first operating system files can be loaded from the first media to the disk drive." The patent sketchily describes a "copy counter" option in two paragraphs in connection with Figure 7, which is used as a security device for controlling the quantity of systems that can be loaded by using a particular recovery diskette. ('573 Pat. at 8:19-45). That discussion sheds light on the meaning of "limiting to a predetermined quantity," namely that for security reasons, the step of loading of the "first operating system files" (which phrase is another error in these claims) from the first media to the disk drive should be disabled after being performed a particular number of times.

Microsoft's proposed construction spells out the plain meaning of the claim language, read in light of that description: "prohibiting (disabling) loading of the 'first operating system files' from the first media to the disk drive more often than a particular number of times, which number is set prior to performance of any step in the recited method."

Veritas says that no construction is necessary. But, the claim term "predetermined" naturally raises the question: determined before what? The jury has to answer that question to understand the claim, and Microsoft's construction answers that question in the context of the whole claim. The claim term "limiting" also needs to be explained. Microsoft proposes "prohibiting (disabling)," because it is clearer than "limiting."

VI. "FULLY CONFIGURED OPERATING SYSTEM" AND "DESIRED CONFIGURATION" RENDER THE CLAIMS INCURABLY INDEFINITE

Microsoft proposes a plain-meaning construction of the claim's phrase "configured operating system": "an operating system which is tailored for a particular data processing system." (Apx. A at 6). This follows from the meaning of "configured," discussed *supra* at 12-15.⁶

The phrase "<u>fully</u> configured operating system," however, is too indefinite to construe. It is not a term of art and the patent does not define it. (*See* '573 Pat. at Abstract, 2:5, 2:15, 4:40). The word "fully," of course, divides the universe of configured operating systems into two camps: "fully" configured and "not fully" configured. The problem is that the patent does not define that dividing line. It gives the POSA no objective guide for distinguishing an operating system that is "fully configured" from one that is "not fully configured."

A patent claim is considered indefinite, under 35 U.S.C. § 112, ¶ 2, if it fails to reasonably apprise those skilled in the art of its scope. *IPXL Holdings, L.L.C. v. Amazon.com, Inc.*, 430 F.3d 1377, 1383-84 (Fed. Cir. 2005) (claims indefinite because "it is unclear" when

Although Veritas suggests in its Brief that the operating system must be dynamically configurable, it does not, and could not plausibly, suggest such a limitation in its construction of "fully configured operating system."

1	infringement would occur); Datamize, LLC v. Plumtre
2	1356 (Fed. Cir. 2005) ("aesthetically pleasing" indefin
3	objective way to determine whether" an interface scre
4	Pac. Resources Co. v. Chesapeake Energy Corp., 236
5	language "comparing" indefinite because it could hav
6	in the art).
7	Consider a hypothetical where a first compute
8	work or a family member at home) configures a comp
9	creates an Emergency Boot (Recovery) Disk. Then, a
10	computer, re-configures it to his liking, does no additi
11	The second user then restores the first user's backed u
12	configuration. Is that restored operating system "fully
13	The '573 Patent does not say. It forces a POSA to gue
14	system configuration is "fully configured" versus "no
15	The '573 Patent Applicant McGill testified tha
16	this patent was "very, very subjective":
17	But, you know, the bottom line is "fully config
18	level of functionality that is necessary for the toputting it. And that's very, very subjective. V
19	particular point in time is going to be a subject
20	**** I don't know what "fully configured" means in
21	don't know what it means in a technical conte

ee Software, Inc., 417 F.3d 1342, 1352, nite as patent did not set forth "any en is "aesthetically pleasing"); Union F.3d 684, 692 (Fed. Cir. 2001) (claim e different meanings to a person of skill

r user (e.g., a computer administrator at outer to her liking, does a full backup, and a second user takes over that same ional backup, and the system crashes. up, out-of-date operating system y configured" or "not fully configured?" ess at what point an out-of-date operating t fully configured."

at "fully configured operating system" in

gured" to me means it has a task, might be another way of What's necessary at any tive thing.

n a legal context, and I also xt. But from the standpoint of someone just sitting and just an average person off the street reading this or understanding this, I think they would understand what I mean. I mean, is it subjective? I think that there are multiple opinions based on who -- if you asked a bunch people, even have technically competent people, what's "fully configured," I think you'd get a lot of different answers. So maybe that makes it subjective.

(Apx. B, pgs. 219-21: McGill TR at 96:22-98:4).

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Mr. McGill is right. Below are some of the different tests a POSA might reasonably consider as candidates for distinguishing a "fully configured" operating system from one that is "not fully configured," with the '573 Patent giving no clear indication as to which is correct:

- <u>Functional Test</u>: An operating system that requires no reconfiguring whatsoever to completely support the full current capabilities of all of the hardware and software of the data processing system on which it is installed (or on which it is expected to be installed).
- <u>Historical Test</u>: An operating system that is configured the same way as an operating system was configured on this or another data processing system at some point in the past, such as the most recently backed up version of the operating system.
- <u>Historical and Functional Test</u>: A configured operating system selected from a set of previously saved configured operating systems to provide the closest match for supporting the full capabilities of all of the hardware and software of the data processing system, which may not be the most recently backed up version of the operating system.
- <u>Subjective Test No. 1</u>: An operating system sufficiently configured to support its hardware and software environment in a manner satisfactory to the user of the data processing system.
- <u>Subjective Test No. 2</u>: An operating system sufficiently configured to support its hardware and software environment in a manner satisfactory to the administrator of the data processing system.

For its proposed construction, Veritas offers a circle of words leading nowhere.

Erasing the word "fully," it proposes: "Operating system having the desired configuration [and defines "desired configuration" as "The desired way in which the capability has been tailored based on selection of components"]. This does not help the POSA at all.

"Desired configuration," recited in Claim 30, is also indefinite. It is not a well-defined term of art and it is not defined in the patent. Who needs to have desired the configuration? How much of it must they desire? When must they have desired it? (*See* Apx. A at 5). Veritas' proposed definition again does not help. For example, when trying to apply that definition, Dr. Smith was forced to concede that a configuration might be "desired" even if the user did not specify or desire any part of it (Apx. B, pgs. 236-38: Smith TR 41:23-43:5)—which makes no sense.

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In sum, the Court should declare this claim language indefinite because it creates the "zone of uncertainty" prohibited by patent law. *Markman v. Westview Instruments*, 517 U.S. 370, 390 (1996).

VII. THE COURT SHOULD DISMISS THE REPORT SIGNED BY DR. SMITH

The Court should dismiss the report submitted by Veritas and signed by Dr. Smith and disregard its stated opinions on claim construction because:

- 1. *Phillips* does not permit an expert to opine on the ultimate issue of construction;
- 2. Dr. Smith does not know the state of the art in 1993 and thus could not and did not use the required "state of the art" lens through which a POSA would have read the patent application (*see* Apx. B, pgs. 228, 234-35, 243: Smith TR 18:13-24, 35:1-36:9, 56:9-13 ("I've made no study of the prior art"); Apx. B, pgs. 247-48: Smith TR 113:4-114:20 ("I haven't looked to see what was on the emergency boot disk [in 1992 or earlier]"); Apx. B, pgs. 264-65: Smith TR 149:10-150:3 (he's read none of the cited prior art); Apx. B, pg. 267: Smith TR 160:8-12 (he's made no effort to learn about the prior art); Apx. B, pgs. 268-69: Smith TR 168:15-169:4 (he has "no idea" who was working on the problem addressed in the patent));
- 3. he mis-defines the pertinent field of art as "the design and implementation of computer system software including operating systems," and thus he mis-defines the POSA. This is neither the problem nor the field addressed by the '573 Patent;
- 4. as a result of the above problems, the report's methodology fails the reliability requirements of Fed. R. Evid. 702 and *Daubert* case law;
 - 5. the report is unsworn and thus inadmissible as evidence; and
 - 6. as explained below, it lacks the required level of trustworthiness.
- (See generally Microsoft's Opening Br. on '147 Pat. at 46-49).

As noted above, Dr. Smith made "no study" of the prior art, did not look at the art Microsoft gave to Veritas months earlier, and did not read even the cited art. His studied

ignorance of the prior art did not stop him, however, from signing a report telling this Court that the '573 Patent's alleged invention was a "significant improvement" over that prior art:

In Section IV [which contains ¶ 34, quoted below], I provide an overview of the inventions of the '573 patent, in particular its key improvements over the prior art," (Apx. B, pg. 102: Smith Report, \P 6).

One of ordinary skill in the art would understand that the resulting reduction in time and labor offers a significant improvement over the prior art methods for system restoration and deployment, while preserving the flexibility of dynamically configuring the operating system during system initialization to accommodate new capabilities and hardware components. (Apx. B, pg. 114: Smith Report, ¶ 34 (last sentence)).

When presented with this troubling discrepancy, Dr. Smith testified that the above-quoted representations that the '573 Patent described a significant improvement over the prior art were not presented in the report as <a href="https://doi.org/10.2007/jib.com/line.

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1	VIII.	CONCLUSION
2		For the foregoing reasons, the Court should construe the disputed claim language in the
3	manne	er proposed by Microsoft.
4		DATED this 19 th day of March, 2007.
5		DANIELSON HARRIGAN LEYH & TOLLEFSON
6		By: s/ John D. Vandenberg
7		Arthur W. Harrigan, Jr., WSBA #1751
8		Christopher T. Wion, WSBA #33207 Attorneys for Defendant and Counterclaim Plaintiff,
		Microsoft Corporation
9		Dan K. Webb, pro hac vice
10		Bruce R. Braun, pro hac vice
11		Raymond C. Perkins, pro hac vice
12		WINSTON & STRAWN LLP 35 West Wacker Drive
12		Chicago, Illinois 60601
13		Telephone: (312) 558-5600
14		Kristin L. Cleveland, pro hac vice
15		Todd M. Siegel, pro hac vice
16		John D. Vandenberg, WSBA #38445
10		KLARQUIST SPARKMAN, LLP One World Trade Center
17		121 S.W. Salmon Street, Suite 1600
18		Portland, Oregon 97204
10		Telephone: (503) 595-5300 Facsimile: (503) 595-5301
19		raesinine. (303) 393-3301
20		
21		
22		
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1	CERTIFICATE OF SERVICE
2	I, John D. Vandenberg, swear under penalty of perjury under the laws of the State of
3	Washington to the following:
4	1. I am over the age of 21 and not a party to this action.
5	2. On the 19th of March, 2007, I caused the preceding document to be served on
6	the Special Master and counsel of record in the following manner:
7	BY E-MAIL AND FEDERAL EXPRESS
8	Gale Roy Peterson Cox Smith Matthews Incorporated
9	112 E. Pecan Street, Suite 1800 San Antonio, TX 78205-1521
10	grpeters@coxsmith.com
11	
12	Ralph H. Palumbo BY E-MAIL AND FEDERAL EXPRESS Michael J. Schallop
13	Summit Law Group PLLC 315 Fifth Avenue South, Suite 1000 Latham & Watkins 140 Scott Drive
14	Seattle, Washington 98104 Menlo Park, CA 94025
15	ralphp@summitlaw.com michael.schallop@lw.com
16	Mark A. Flagel Belinda Lee
17	Michael Schallop Latham & Watkins LLP
18	633 West Fifth Street, Suite 4000 Los Angeles, California 90071
19	mark.flagel@lw.com
20	belinda.lee@lw.com
21	
22	Day and Jaka D. Wandaukana
23	By: <u>s/ John D. Vandenberg</u> John D. Vandenberg
24 25	
25 26	
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